

Indian institute of Technology madras
NPTEL
National Programme on Technology Enhanced Learning
Introduction to Modern Linguistics
Lecture – 14
Consonants
Prof. Shreesh Chaudhary
Dept. of humanities and Social Sciences
IIT Madras

Good morning. Once again can I have your attention please good morning right we have been talking about mechanism of the production of speech sounds in natural languages and we have seen that we have a very versatile vocal apparatus that can produce a different variety of or a large variety of different kinds of sounds we also saw that all speech sounds can be classified into two large classes one class is called vowels and the other class is called consonants vowels and consonants differ phonetically in a very significant manner all vowels are voiced oral and unobstructed.

That is not the case with all consonants may or may not be voiced may or may not be oral may or may not be obstructed and even if they are obstructed or not obstructed the release of obstruction and articulation differs we also saw that we described vowels in different languages according to whether they are produced from the front of the mouth or from the or from the back of the mouth whether in their production jaws are closed or open whether lips are rounded or unrounded on the other hand we saw that consonants.

Will have to be described by a different parameter consonants require three term level of a different kind we ask and say whether they are voiced or voiceless where is obstruction the place of obstruction or place of articulation and the manner and release of obstruction what are the three things we look at in the description of consonants please close your eyes and tell me voiced or voiceless.

(Refer Slide Time: 02:14)

Three-Term Label for Consonants

- Voiced or Voiceless
- Place of Articulation
- Manner/Release of Obstruction

Place of obstruction or articulation and manner of obstruction or articulation once again please tell me what are the three term levels for consonants number one voiced or voiceless number two number three manner let us apply it to the English language because you know fortunately or unfortunately that is the only language you and I and all of us here know so let us take examples from English.

(Refer Slide Time: 02:59)

Description of English Consonants

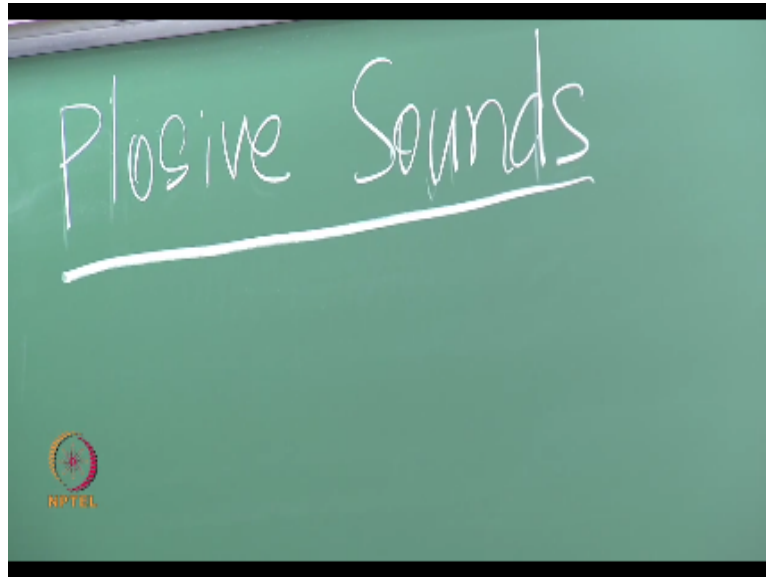
- Plosive

/p/ as in	p in	voiceless bilabial plosive
/b/	b in	voiced bilabial plosive
/t/	t in	voiceless alveolar plosive
/d/	d in	voiced alveolar plosive
/k/	k in	voiceless velar plosive
/g/	g ive	voiced velar plosive

These are the sounds in English okay. Let us try and describe say for example do not say power that is it ah should not come you know in your articulation otherwise I will make it poison if

you say power then it is voiced but if you just say is not voiced okay so this is now is it voiced or voiceless where is the place of obstruction both lips so bilabial you know I have said bilabial okay and then what is the manner of release of obstruction sudden explosion so it is called plosive okay. There is a please write there is a large class of sounds its consonant sounds known as.

(Refer Slide Time: 04:12)

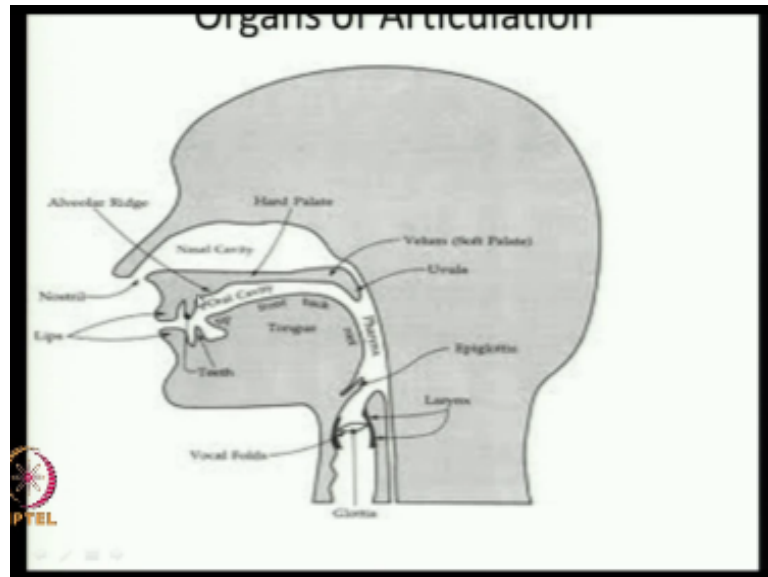


What is the characteristic applause if sounds all plosive sounds are produced with total obstruction please write and sudden release of obstruction all closing speech thumps no matter which language they are in we in Indian language and many Indian languages also have lots of clothes if sounds all closed if sounds are produced with number one total obstruction somewhere in the oral passage and sudden release of obstruction.

That is why they are called closing English has three pairs of plosive six what are they first is what how do we describe it is voiceless bilabial plosive so poor as in pin next is but what is it but okay make it blue you do not add a but how do you describe it this is voiced or voiceless put your finger here but and just you see the difference okay. Is it voiced or voiceless voiced where the place of obstruction lips is both lips so bilabial what is the manner of release sudden.

Therefore it is closing so we have voiced bilabial plosive but as in been next as in tin okay do not say top sit just you know just release take the tip of your tongue take the tip of your tongue to them take the tip of your tongue here you take the tip of your tongue to the alveolar ridge.

(Refer Slide Time: 06:02)



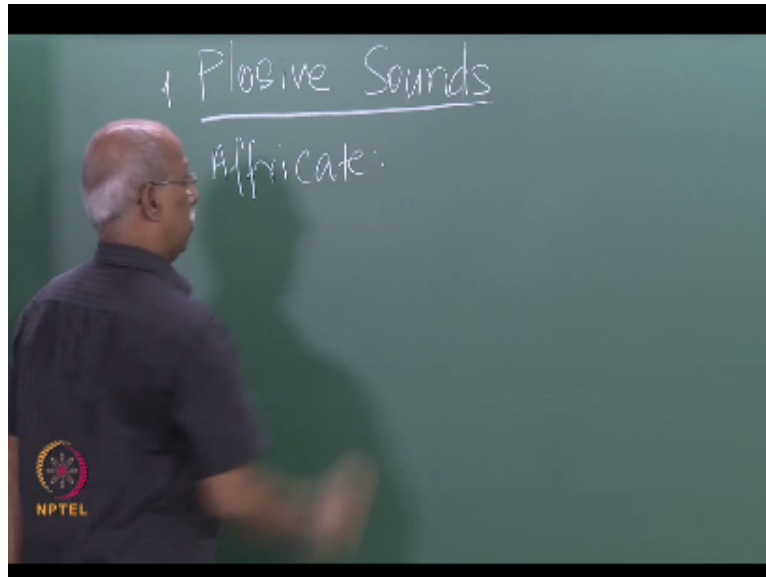
Above the upper teeth let there be full contact and release it suddenly that is what you get okay how do we describe it is it voiced or voiceless its voiceless where is the place of obstruction village therefore we call it alveolar and what is the manner of release of obstruction is plosive go to next okay can you find your own example rather than copy mine in English word as in write your own no this is mine take find urine English as 500 and 99,000 other words okay.

Find your own example as in right now how do you describe it is voiced or voiceless voiced where is the place of obstruction okay lovely and what is the manner of release of obstructions plosives then the next pair of sounds in English is back of the tongue look at the process back of the tongue here you know this Rises and touches the soft palate otherwise you cannot say okay back of the turn rises and touches the soft palate flow of air is totally blocked.

No air can pass through this passage is blocked and you suddenly release it and you get okay don't add ah don't say car the sick take the back of your tongue to the soft palate let there be total contact and suddenly release it the sound you get is as in give me your own word car eat as in King as in now right is it voiced or voiceless where is the place of obstruction back of that or velum therefore velar you know where as we said alveolar foot this is velar okay what is the manner of release of obstruction closes love you good as in give me your example.

Good get go okay all right is it voiced or voiceless white fairly mechanical you know you can you can say it anyway voiced what is the place of articulation velar and elusive okay come to another class of sounds.

(Refer Slide Time: 09:13)



You might recall in the last class I told you that there are some sounds should belong to the class call affricates in this class of sounds in this class of speech sounds there is total obstruction but gradual release closed observes total obstruction but in the Plosive class of sounds there is total obstruction but sudden release whereas in affricates we have total obstruction but what shall we say gradual release.

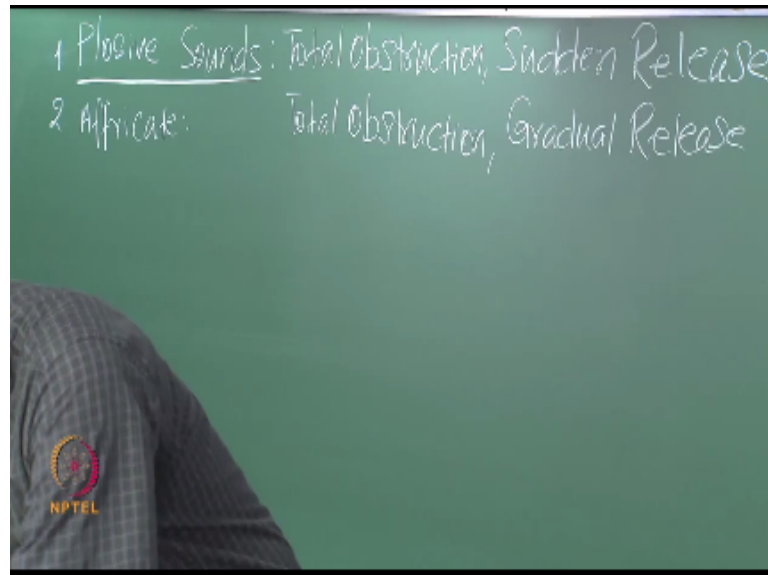
So you know you have something like a friction not exact friction but something like friction that is why it is called affricate that is why it is called affricate friction like you have words for example you have sounds like in English not in our languages most of the most in most Indian languages charge her is closing you know we do not say Charisa we do not say church you know this is how those people who go to English is cool you know when they are Telugu becomes anglicized they do not say Baba they say bargain are you know then looks like they were speaking American no but a smart people speak Telugu like Telugu and American like complete the sentence.

Please American so you know in our languages chagha chagha is closing but in English they do not say church is a church what do they say they say bench rich she will Richard chart shorter

it is a total obstruction and gradual release similarly they have June you know I did not judge as in jus with jue one who lives in the zoo park or in Israel Jew nor Zoo you know English has zoo so for example .

When you go to Hyderabad you go to Nausea geological garden you do not go to narrow geological garden okay that zoo comes from the tip of the tongue that is zoo but this is a Jew you know hard palate middle of the tongue middle of the tongue here you know in English middle of the tongue rises and touches the hard palate and then you slowly release it saying Shh say it everybody please I only if it is voiced then you say.

(Refer Slide Time: 12:24)



That is the difference okay that is all the difference so how shall we describe it please right this is the symbol.

(Refer Slide Time: 12:34)

Description of English Consonants

- Affricate

/tʃ/ as in chin voiceless palatal affricate

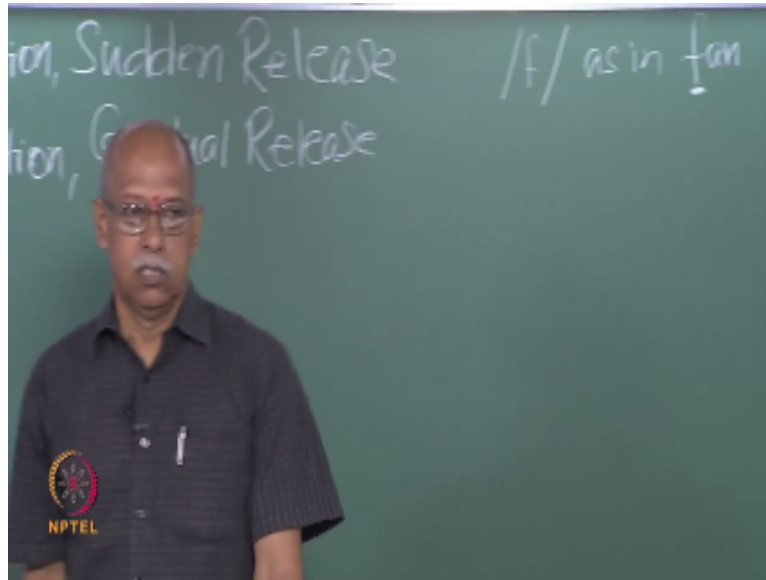
/dʒ/ jew voiced palatal affricate

And you know by the way as a footnote you acquired the ability to recognize in write phonetic alphabet am i right because in the quiz I am going to give you some text and phonetic alphabet and I will ask you to write it in normal English orthography okay please so do have some practice at least begin writing your name okay your SMS to your worst enemy in IPA symbols right. Please write it so what is it this is as in chin have your own example do not use my example please English word take an English word.

Yeah as in cheek or as in chick chicken okay right okay now is it voiced or voiceless put your finger here and that is it you see I am just not interested in describing English I am madam my sole job is the Institute has told me plays series Choudhury produce some two dozen good phoneticians okay so feel it here keep your finger here and say be here any vibration okay now say do you hear any vibration. That is it so is it voiced or voiceless is it where is the place of obstruction pair late hard palate.

Therefore you call it palatal not panacea palate okay and what is the manner of release of obstruction friction like therefore we call it affricate so three term level here is voiceless palatal affricate okay next write the symbol okay take your own word I have you I have given you just okay is it voiced or voiceless voiced palatal affricate okay now I am going to make your life a little more difficult than this I am not going to show you any slides just now we will come to it later let us take this sound.

(Refer Slide Time: 15:49)



I will give you the name later let us look at this sound right the symbol as an English word as an English word okay how is it produced it is produced in the following manner look at the diagram look at the organs of articulation you know lower lip comes close to but does not touch the upper teeth are you are we together are you with me please yes I do not know some people in the Kayak kumari region seem to be from are we together lovely that is good to hear that okay .

Lower lip comes close to the upper teeth but does not touch it okay right please produce the sound do not say do not add are there do not say far that is it any vibration here is it voiced or voiceless please right where is the place of obstruction there is you know the passage is narrow there is friction and you hear the friction you hear okay so where is the place of obstruction between lip and teeth so the Latin word for lip and teeth would be labial leave you dental.

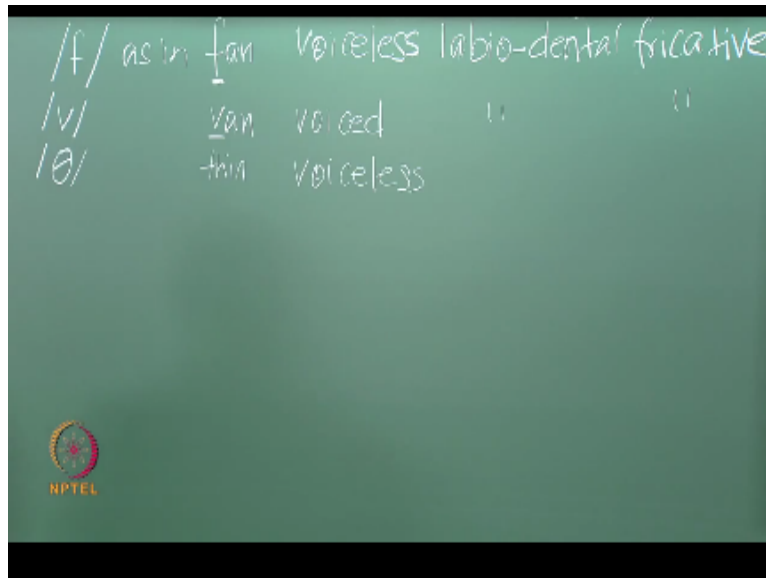
What is the manner of release because there is no total obstruction there is production only with friction so we say fricative when it was friction like then it was affricate but where it is air is complete friction then we say fricative what do we call it entire class please what is this word it is not fricative and if fricative what is it once again what's it reduce okay so now we have got the three turbulent for it what is it is voiceless labiodentals fricative tell me what is it voiceless fricative okay let us look at another word as in now feel it you feel it here is it boy a voiceless voiced labiodentals fricative correct.

Let us take the next pair so we call the third not the third class you know the third type okay third class in India gives a very bad impression you know looks like have I think you were not around when Indian Railway trains have third class compartment have you seen no you have only seen second class in fourth class there was you know when I was your age there used to be an Indian Railways third class compartment but some socialist ministers removed it and put half about six inches.

Of cushion not six inches fewer some cushion on it okay so let us not call it hurt let us call it third type third type of consonants are called what are they called please give me the pronounce it what is it called fricative not fricative many of us in India promoted a fricative it is not fricative at a fricative what is it fricative okay let us look at the next example look at the symbol carefully you know it very well but please remember it what is that theta okay as in King thick theory through thought think okay.

What happens is you know English is the only language known to phoneticians English is about the only language which has this sound in our languages we produce her with complete contact between tip of the tongue here between tip of the term and upper teeth you know tip of the tongue rests on the upper teeth and then we say the third not in English in English what happens is there is slight parting no contact between the two rows of teeth there is opening there and tip of the tongue goes close to it but does not touch it and then you say it slight opening between two or two rows of teeth let the tip of the tongue go close to it and say please come okay produce this how do we describe it is it voiced or voiceless.

(Refer Slide Time: 21:36)



Where is the place of articulation where is the place of articulation between two rows of teeth so we will call it interdental inter dentally okay is it produced with or without friction is it produced with or without friction with friction therefore it is fricative let us look at next okay this same way varies you see for Europeans Greek and Sanskrit is the source language for technical terminology most of the time like we draw from Sanskrit they draw from Greek and Latin okay so as in as in this that they are those these breathe okay.

With right feel it here keep your finger here and say opening between teeth don't say da guys our language you know tip of the tongue touches the back of the upper teeth and then we get done we say da da da da but in English there is opening between the two rows of teeth and the tip of the tongue goes close to that opening but does not touch it then produce do it so easy right is it voiced or voiceless voiced same interdental fricative.

Look at the next symbol very easy what is this as in sip sin sit sad okay as in shape sing sit sad you know lots of words this okay. Miss right so what shall we say as you I am sorry I please pardon me amiri very stupid mistake I did not write the example here it should be sorry I am sorry this and we are writing example for as you sit okay underline it is it voiced or voiceless is voiceless.

(Refer Slide Time: 24:59)

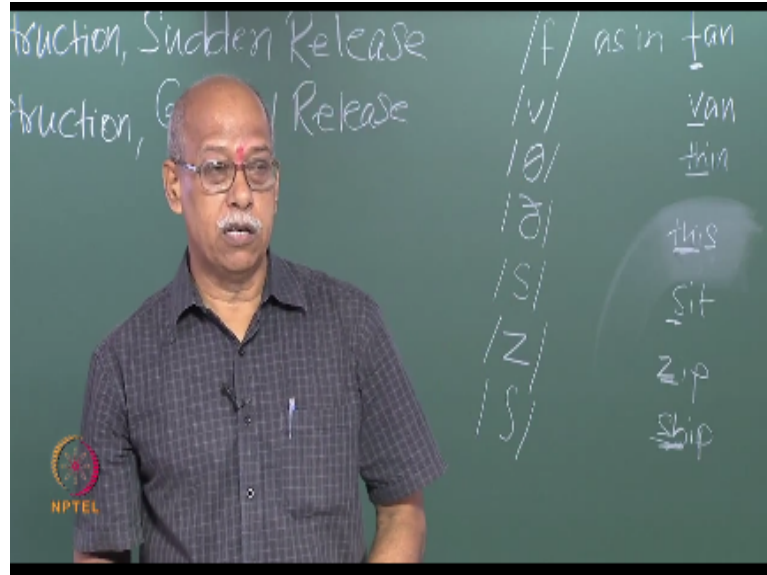
/f/	as in fan	voiceless labio-dental fricative		
/v/	van	voiced		
/θ/	thin	voiceless interdental		
/ð/	this	voiced		
/s/	sit	voiceless		

Place of articulation place of articulation no when you say feel it the tip of your tongue actually the blade of your tongue rises towards the alveolar Ridge okay there is slight expansion of the blade of the tongue when you say okay slight expansion of the blade of the tongue and it rises towards the alveolar Ridge here is your tongue okay. Is it your tongue I guess there is slight expansion of the blade moves upward moves upward towards.

The alveolar Ridge and you get is it voiced or voiceless its voiceless where is the place of obstruction near the alveolar Ridge so we call it alveolar is it produced with or without friction is it produced with or without friction with friction so we call it fricative this is as we had this is feel it here voiced or voiceless voice very obvious as in zip voiced everything else remains the same feel it here I am giving you a challenging example now okay.

This is has him as in sheep ship or the symbol is like an S which has been pulled okay stretched as in sheep voiced or voiceless place of articulation place of articulation place of articulation no it is it you feel it you see do not be misled by terminology feel it you see it is the blade of your tongue keep producing this sound keep producing it is the blade of your tongue which move upwards towards the front of the palate it moves up watch it is almost the middle of the tongue or the blade of the tongue which moves upwards towards the hard palate. You see here somewhere okay there is no close contact but there is extremely narrow passage so that you have friction you say okay many of us.

(Refer Slide Time: 28:30)



In you know I in my part of the country I come from North Bihar so many people in Nepal North Bihar venires region eastern Uttar Pradesh that is Assam and Orissa we do not produce sure we say sir we do not speak English with the English so there is difference you know these two things come from two different places lots of people have Europe variations. If you go to boggle in Bengali you do not have for that also they say so they do not take a sip of tea they take a shape of tea you know they do not take Rasulullah.

They say Raja Willa you know each region has its peculiarity but where does the peculiarity come from peculiarity comes from difference in the manner of articulation place of articulation so where is the place of articulation in this case the blade of the term rises towards palate or hard palate and then you know there is friction so what shall we write it voiceless now give me the term peloton lovely.

If there is a young politician award I will recommend your name for it okay voiceless palatal what will be the third term fricative please write okay in English we also have a voiced counterpart for this world or do and French have lots of words but in English we have please note this symbol Place Market this is as imply pleasure or measure major okay our leisure leisure pleasure you know a whole lot of words where s comes between you know Falls and is voiced okay so this is as in leisure okay is it voiced or voiceless first palatal fricative okay.

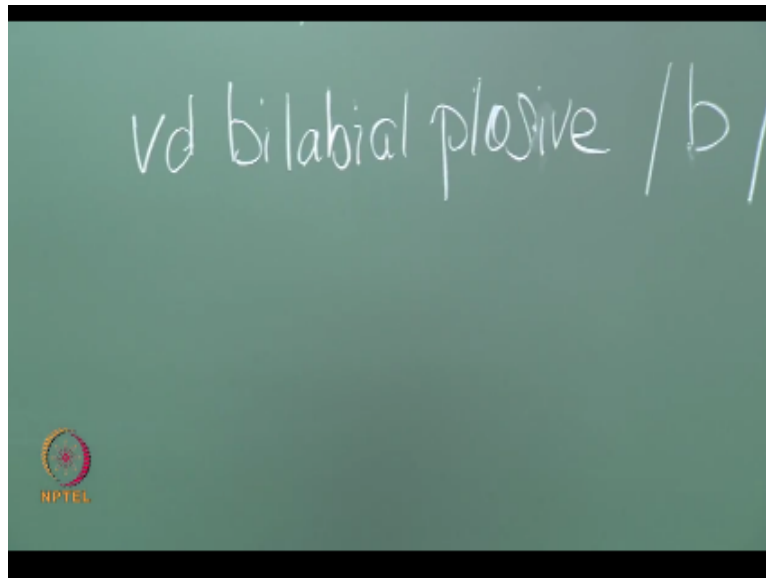
This is large class of words in English we never in real languages you know in many Indian languages we do not have so many fricatives but English has English has lots of them there is one more how many did we get we already got eight right English has one more and I will write it here English has let me try and write it here can you capture it please what is this don't say ha that's it no voicing okay it is not H it is okay voiced or voiceless huh as in he voiced or voiceless please the class my friend on the last bench please voiceless.

Then where is the place of articulation pharyngeal therefore adjectives of pharyngeal should be pharyngeal please right pharyngeal of course fricative this is voiceless pharyngeal fricative okay let us go to the next class are we together re are we together are you with me is it becoming too difficult to understand please be frank okay then I will give you some entertainment commercial break is it okay shall we continue I shall take a commercial break but we will take a commercial break I will give you the three-term level and you will write the symbol.

Please write the symbol close your eyes do not look into your friends notebook do not look into your own notebook either and with closed eyes write the same bond okay let me see how many this is a party game you see best of learning has happened when you give a test to yourself okay did you have an end semester examination in cycle riding or in quiz in eating and we have learnt all of these skills okay how to do this how to do here you know how to shave all of these things so give yourself a test.

I will tell you the three-term level and you will write the symbol okay ready okay all right by leg sorry voiced bilabial plosive right the symbol right the symbol I will come to your notebook I will check do not worry is it this voiced bilabial plosive is it this you got full marks okay.

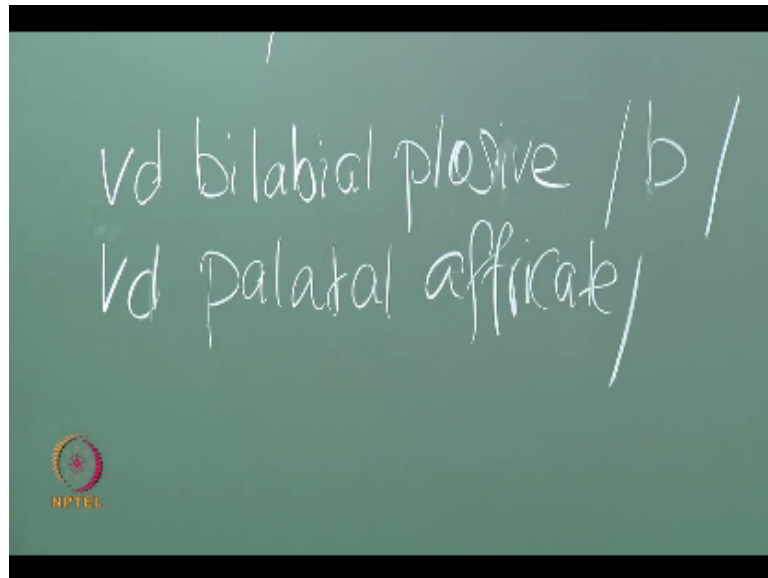
(Refer Slide Time: 34:50)



Next listen carefully and do it you see this is the this you know this is the best way to learn some of these things through tests through questioning checking making connections you know suddenly you see I am being cool with you suddenly I am asking your brain to take 44 new terms and 44 x 3 okay so you know so many new terms and terminology I am asking you to write so if you do not remember it is not your fault it is my fault I am expecting too much from you but the point is this is life.

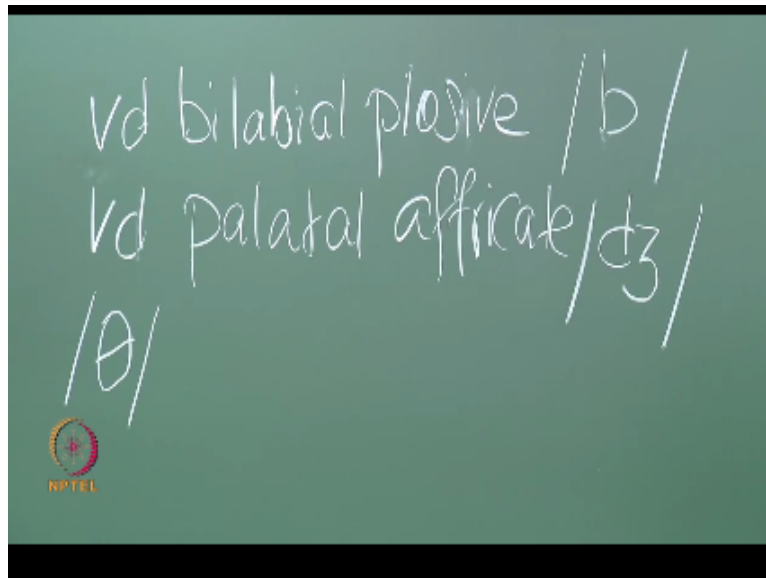
We have to live we have to survive how do we do it we do it by growing up by taking more by retaining it how shall we retain it these are the ways tests so you have how many people passed this test those who passed those who failed please do not raise your hands those who passed this test lovely this time I want the entire class to pass please listen carefully and do it voiced palatal affricate give me the symbol write it on your notebook and then check with fine.

(Refer Slide Time: 36:06)



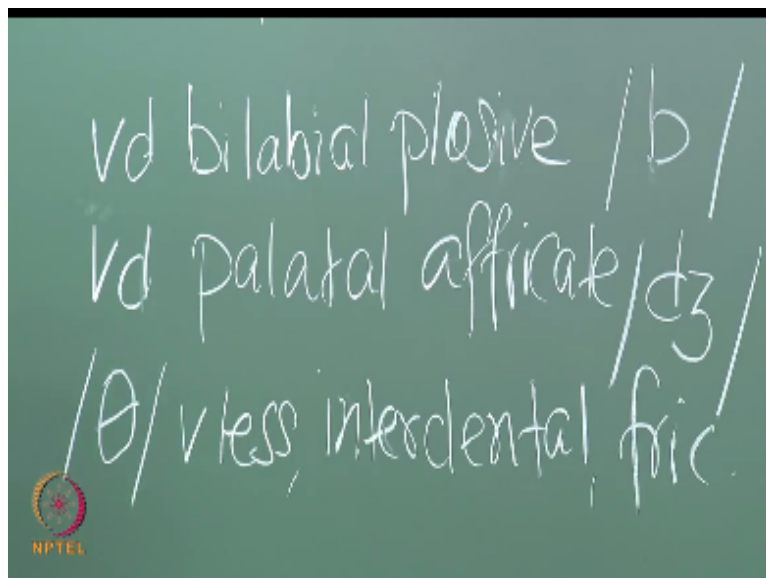
Do not liquid to others through voiced palatal affricate please do not look at the board do not look at anything right the symbol on your notebook okay now check with me is it this did you get it how many we got it two three four my god please do not tell my director I will lose my job they say that this is City story if you can't get ever tell people to learn your subject I should better get rid of you god it fatigue are you guys did you guys not sleep well last night sorry Chris I wish I also had quiz then you would have remembered okay. Now I will do one thing I will make it easier for you I will write the symbol and I will expect you to have the three-term level is that okay sure lovely let us do it give me three term level right oh no do not speak please right.

(Refer Slide Time: 37:24)



I will give it and then you check with mine check against mine okay now please check voiceless did you get it raise your hands those who got it one two three four five six seven eight nine ten not bad okay get it right both ways you know you must have the two-way connection.

(Refer Slide Time: 38:04)



Symbol to description to symbol two examples ,I am going to give you quiz like this for your end semester examination please and do not curse me if you get 0 on 30 or if you get 31 on 30 okay then tell me I will give you a cake or something shall we continue commercial break over okay. Let us go to the next class sorry okay , we will continue with this tomorrow and I

will expect you to describe Telugu consonants please can you bring it to the classroom look at the description so that we can share it with one another also get can I have your attention please also get symbols and the terminology right thank you have a good day.

Online Video Editing /Post Production

K.R.Mahendra Babu

Soju Francis
S. Pradeepa

S. Subash
Camera

Selvam
Robert Joseph
Karthikeyan
Ramkumar
Ramganesha
Sathiaraj

Studio Assistants

Krishnakumar
Linuselvan

Saranraj

Animations

Anushree Santhosh
Pradeep Valan .S.L

NPTEL Web & Faculty Assistance Team

Allen Jacob Dinesh
Bharathi Balaji
Deepa Venkatraman

Dianis Bertin
Gayathri
Gurumoorthi
Jason Prasad
Jayanthi

Kamal Ramakrishanan
Lakshmi Priya
Malarvizhi
Manikandasivam
Mohana Sundari

Muthu Kumaran
Naveen Kumar

Palani
Salomi
Senthil
Sridharan
Suriyakumari

Administrative Assistant

Janakiraman .K.S

Video Producers

K.R Ravindranath

Kannan Krishnamurthy

IIT Madras Production

Funded by
Department of Higher Education
Ministry of Human Resources Development
Government of India
www.nptel.ac.in
Copyrights Reserved